Dear 2001-2003 Elantra or 2003 Tiburon Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Hyundai has decided that a defect, which relates to motor vehicle safety, exists in certain model year 2001 through 2003 Hyundai Elantra vehicles that were produced during the period beginning June 30, 2000 through January 13, 2003 and certain model year 2003 Hyundai Tiburon vehicles produced beginning on October 26, 2001 through January 13, 2003. This recall affects such vehicles registered in and operated in Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin, and the District of Columbia (the Salt Belt).

Federal law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

What is the problem?
"During winter months, large quantities of salt are used to de-ice roads in the Salt Belt states, noted above. Road salt may result in internal corrosion and thinning of the steel in the front lower control arms. In severe cases, the corrosion may progress to the point where the lower control arm's upper and lower panels become perforated. A perforated front lower control arm may fracture between its ball joint attachment and the forward and rearward pivot attachments to the chassis. This could affect your control over the tire and wheel assembly.

Reduced control of the front wheel direction may increase the risk of a vehicle crash without warning.

What will Hyundai do?
"We are asking you to schedule an appointment as soon as possible to take your vehicle to your Hyundai dealer. The Hyundai dealer will inspect the front lower control arms for corrosion damage. If specified levels of internal corrosion damage are found, the front lower control arms will be replaced with new front lower control arms incorporating additional holes in the upper and lower panels. If your front lower control arms do not require replacement, the dealer will add drainage holes to the front lower control arms and will treat the front lower control arms with rust-proofing material to arrest the internal corrosion process.

In addition to treating the front lower control arms, the Hyundai dealer will inspect the front subframe of your vehicle for signs of corrosion that could potentially progress and ultimately affect vehicle performance. This additional inspection is a precautionary measure to offer improved drainage in the front subframe. If the dealer finds a specified level of corrosion damage, the dealer will replace the front subframe. Otherwise, the dealer will treat the front subframe with rust-proofing materials and add drainage holes.

Both procedures will be performed at no charge to you. You should plan to leave your vehicle at your Hyundai dealer to have this service performed. Repair times will vary and depend on your dealer's appointment schedule.

What should you do?
"We urge you to call your Hyundai dealer to schedule an appointment to have this work performed as soon as possible.

What if you have other questions?
"If you have any difficulty having this repair performed, we recommend that you call the Hyundai Customer Assistance Center at 1-800-633-5151. If you are still not satisfied that we have remedied this situation without charge, and within a reasonable amount of time, you may wish to write to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, D.C. 20590, or call their toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153), or go to http://www.safercar.gov.

Reimbursement Notification
"Hyundai has a program for reimbursing owners of 2001 through 2003 Elantras and 2003 Tiburons produced through January 13, 2003 who paid to have the front lower control arms replaced after April 14, 2008 and prior to receiving this recall notification letter.

To obtain information about reimbursement from Hyundai, please call the Hyundai Customer Assistance Center at 1-800-633-5151. Ask about reimbursement information for campaign 091.

We urge your prompt attention to this important safety matter.

Hyundai Motor America

July 10, 2009

TO:ALL HYUNDAI DEALER PRINCIPALS/GENERAL MANAGERS:
ALL HYUNDAI DEALERSHIP SERVICE MANAGERS:
ALL HYUNDAI DEALERSHIP PARTS MANAGERS:
ALL HYUNDAI DEALERSHIP SALES MANAGERS:

SUBJECT: Recall Campaign 091 - Front Lower Control Arm and Front Subframe Corrosion - TSB# 09-01-022

Hyundai Motor America is conducting a Customer Notification for inspection and rust-proofing treatment or replacement of the front lower control arms and front sub-frame on certain 2001 - 2003 model year Elantra and 2003 Tiburon model year vehicles.

This campaign provides a procedure for the inspection and rust-proofing treatment or replacement of the front lower control arms and front subframe.

In order to identify only those vehicles affected by Campaign 091, it will be necessary to access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS before starting the repair. The "Warranty Vehicle Information" screen will identify affected vehicles with an open Campaign 091.

Dealer Letter, Customer Letter, and Technical Service Bulletin #9-01-022 will be posted on Hyundai's Website July 10, 2009.

All Hyundai dealers will be shipped a supply of the following materials in their weekly parts shipments as part of the Subframe/Trailing Arms/Front Lower Control Arms campaigns:

1.Tool kit(s)
2.Chemical kit - additional chemicals can be ordered from your facing PDC as more chemicals are required.

Customer notification letters will be mailed in weekly flights starting Friday, July 17, 2009.

It is IMPORTANT TO SUBMIT A CAMPAIGN CLAIM FOR EACH VEHICLE SERVICED so your dealership can be compensated for your work and Hyundai can maintain accurate records of campaign completions.

LEGAL LIABILITY NOTICE: You are required to keep confidential any and all information and documents provided to you by Hyundai Motor America in the conduct of carrying out work for this recall campaign. Hyundai Motor America dealers may use owner information provided for the recall campaign only for the purpose of conducting and performing this recall campaign, and for no other purpose.

Hyundai appreciates your cooperation and support. Questions may be directed to your District Parts and Service Manager or Warranty HELPREP line at 1-877-446-2922.

HYUNDAI MOTOR AMERICA

IMPORTANT: DEALERS MUST PERFORM THIS CAMPAIGN ON ALL AFFECTED VEHICLES WHENEVER AN AFFECTED VEHICLE IS IN THE SHOP FOR ANY MAINTENANCE OR REPAIR.

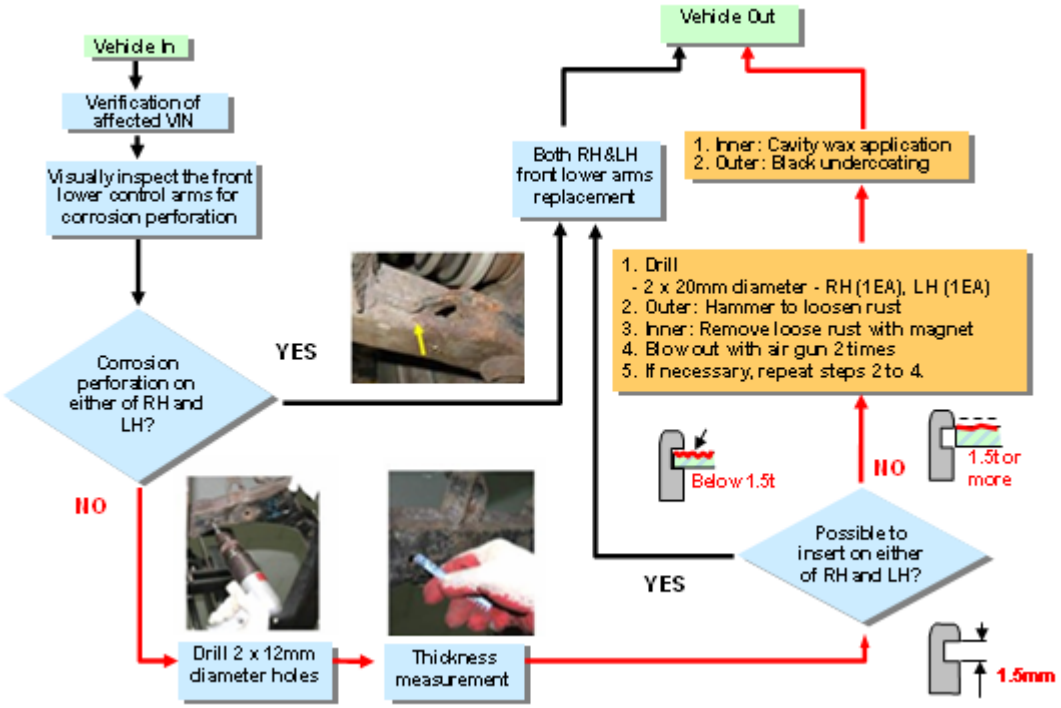
IMPORTANT: WHEN A VEHICLE ARRIVES AT THE SERVICE DEPARTMENT, ACCESS HYUNDAI MOTOR AMERICA'S "WARRANTY VEHICLE INFORMATION" SCREEN VIA WEBDCS TO IDENTIFY OPEN CAMPAIGNS.

DESCRIPTION:

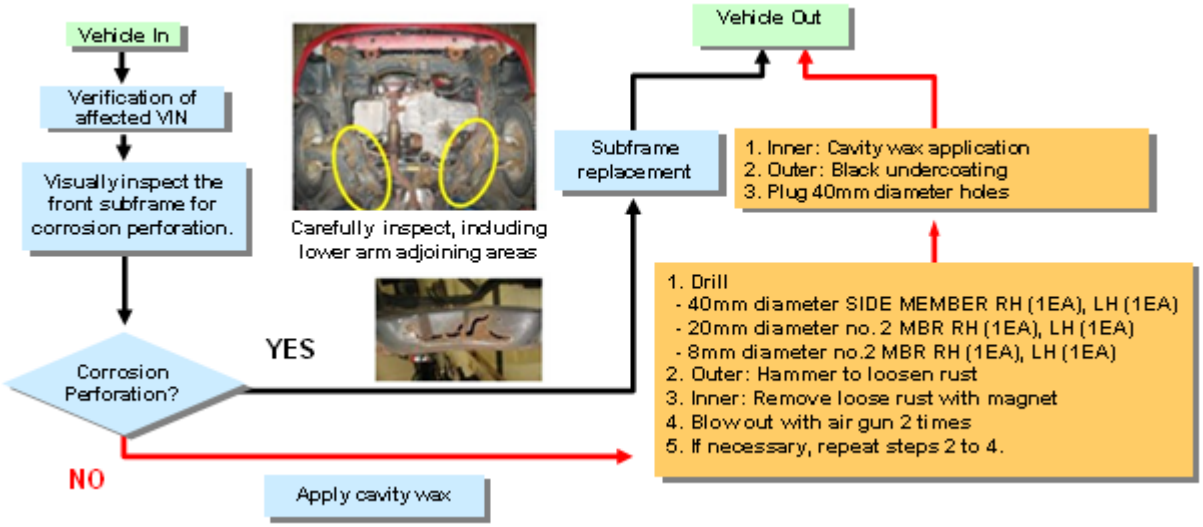
- Some 2001-2003 Elantra (XD) and 2003 Tiburon (GK) vehicles that are registered and operated in specified "salt belt" states may exhibit corrosion damage to the front lower control arms.
- Inspect the front lower control arms for corrosion damage. Measure the thickness of the front lower control arm steel. If specified levels of corrosion damage have occurred, as described in this bulletin, replace the front lower control arms with new front lower control arms that incorporate additional holes in the upper and lower panels. If the front lower control arms do not require replacement, add drainage holes and treat the front lower control arms with rust-proofing material.
- Inspect the front subframes for corrosion damage. As a precautionary measure and to improve drainage from the subframe, add drainage holes and treat the front subframe with rust-proofing material. If corrosion perforation is found as described in this bulletin, replace the front subframe.

SUMMARY OF SERVICE PROCEDURE:

- FRONT LOWER CONTROL ARMS


Vehicle In
Verification of affected VIN
Visually inspect the front lower control arms for corrosion perforation
Corrosion perforation on either of RH and LH?
YES
NO
Drill 2 x 12mm diameter holes
Thickness measurement
Both RH&LH front lower arms replacement
Vehicle Out
1. Inner: Cavity wax application
2. Outer: Black undercoating
1. Drill
- 2 x 20mm diameter - RH (1EA), LH (1EA)
2. Outer: Hammer to loosen rust
3. Inner: Remove loose rust with magnet
4. Blow out with air gun 2 times
5. If necessary, repeat steps 2 to 4.
Below 1.5t
1.5t or more
NO
Possible to insert on either of RH and LH?
YES
1.5mm

- SUBFRAME ASSEMBLY


Vehicle In
Verification of affected VIN
Visually inspect the front subframe for corrosion perforation.
Carefully inspect, including lower arm adjoining areas
Corrosion Perforation?
YES
NO
Apply cavity wax
Subframe replacement
Vehicle Out
1. Inner: Cavity wax application
2. Outer: Black undercoating
3. Plug 40mm diameter holes
1. Drill
- 40mm diameter SIDE MEMBER RH (1EA), LH (1EA)
- 20mm diameter no.2 MBR RH (1EA), LH (1EA)
- 8mm diameter no.2 MBR RH (1EA), LH (1EA)
2. Outer: Hammer to loosen rust
3. Inner: Remove loose rust with magnet
4. Blow out with air gun 2 times
5. If necessary, repeat steps 2 to 4.

APPLICABLE VEHICLES - VERIFY THAT THE VEHICLE IS IDENTIFIED AS AFFECTED BY THE CAMPAIGN VIA WEBDCS:

Models: 2001-2003 (XD) Elantra, 2003 (GK) Tiburon

Applicable vehicle production date range:

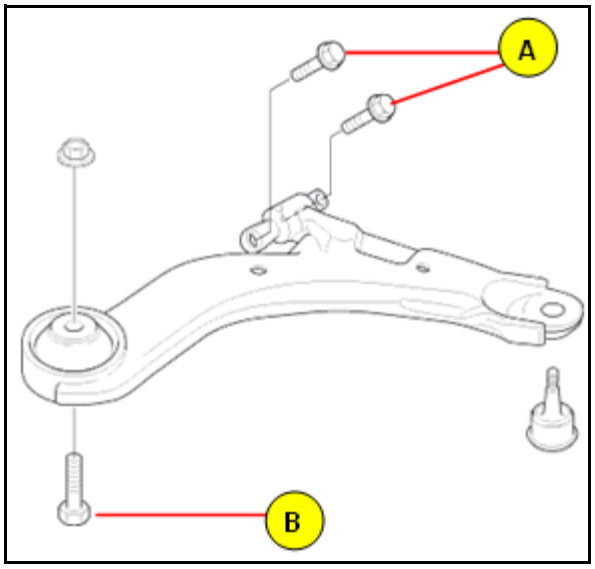
- XD Elantra - From Job#1 through January 13, 2003.
- GK Tiburon - From Job#1 through January 13, 2003.

Area: Salt belt states: Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin and the District of Columbia.

PARTS (KIT) REQUIRED:

FRONT LOWER CONTROL ARMS

Model	Kit #	Components	Remark
XD	54505-2D002QQH	Lower arm, LH	
		Lower arm, RH	
		Nut, 2EA	G bush mounting
		Bolt, 2EA	
		Bolt, 4EA	A bush mounting
GK	54505-2C607QQH	Lower arm, LH	
		Lower arm, RH	
		Nut, 2EA	G bush mounting
		Bolt, 2EA	
		Bolt, 4EA	A bush mounting



A: A bush mounting bolt

B: G bush mounting bolt

SUBFRAME ASSEMBLY

Model	Kit #	Components	Remark
XD	62405-2D011QQH	Subframe, 2 nuts, 2 bolts	
GK	62405-2C511QQH	Subframe, 2 nuts, 2 bolts	

WAX APPLICATION FOR CORROSION PREVENTION

Model	Kit #	Components	Remark
XD/GK	62460-2D000QQH	2 Rubber plugs	For plugging 40mm holes after wax application.

TOOLS REQUIRED (not supplied in tool kit - Dealer supplied)

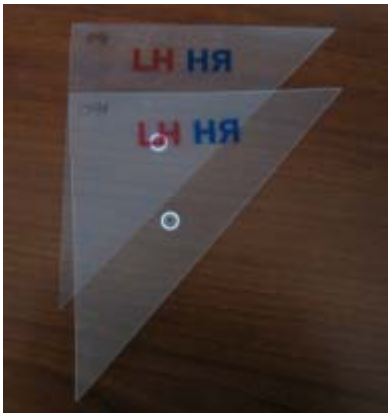
No.	Name	Image	Remark
1	Hammer		
2	Electric drill		
3	Drill bit (8mm diameter)		Center-pointed type
4	Drill bit (12mm diameter)		Center-pointed type

5	File		For removing burrs from around the drilled holes
6	Air gun		Straight nozzle type

NOTE: Additional drill bits should be obtained from your local Parts Supply vendor when needed.

TOOL KIT (supplied to dealers by HMA)

No.	Name	Image	Remark
1	Hole saw (40mm diameter)		Provided in tool kit Usage tips: 1. Remove plug ejection spring from arbor. 2. Use anti-seize compound on arbor threads when replacing hole saw. 3. Spin hole saw cutter before contacting cutting surface to minimize tooth damage.
2	Hole saw (20mm diameter)		With center point Usage tips: 1. Remove plug ejection spring from arbor. 2. Use anti-seize compound on arbor threads when replacing hole saw. 3. Spin hole saw cutter before contacting cutting surface to minimize tooth damage.

3	Air gun		90 degree angle nozzle type; provided in tool kit
4	Thickness gauge		Measuring thickness of panel
5	Flexible magnet		Flexible type; provided in tool kit
6	Control arm drilling template		2 templates provided. Each can be used on either left or right control arm.

NOTE: Dealers will automatically be supplied with a Tool Kit from HMA.

NOTE: Additional hole saws and arbors should be obtained by calling SPX at 800-345-2233. Please note the replacement hole saws from SPX are compatible with the arbors in the supplied tool kit.

Part Number	Description
J-50236	1 5/8” (40mm) Hole Saw
J-50237	1/2” Hex Shank Arbor
J-50238	13/16” (20mm) Hole Saw
J-50239	3/8” Hex Shank Arbor

CHEMICAL KIT:

No.	Name	Image	Remark
1	Wax injection gun		P/N 00232-19036
2	Cavity wax		P/N 00232-19034 1 vehicle per can

3	Undercoating spray		P/N 00232-19035 Black color 10 vehicles per can

NOTE: Dealers will be supplied with an initial order of the Chemical Kit. Additional product should be ordered through your facing PDC.

SERVICE PROCEDURE:

- **SUBFRAME INSPECTION**

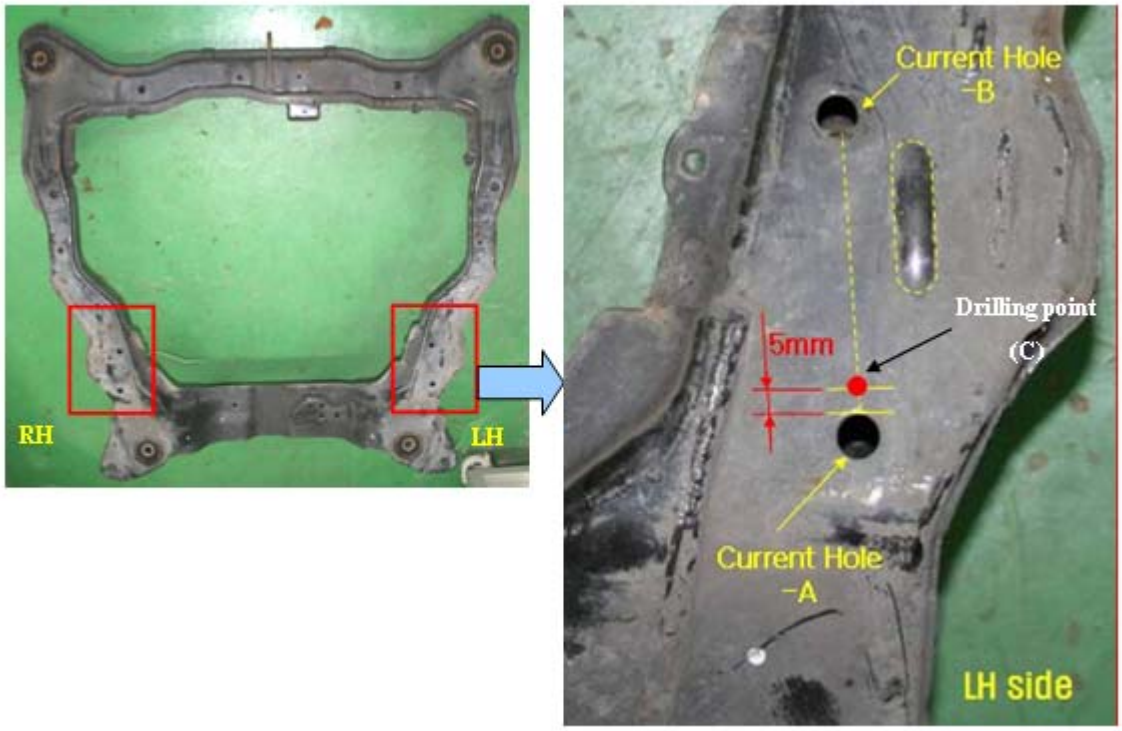
1. Lift up the vehicle.	

2. Lightly strike the subframe thorougly with a hammer. **CAUTION: Be careful, DO NOT strike the subframe too hard to prevent deformation damage.**	
3. Inspect the subframe for corrosion perforation. The photo at the right shows corrosion perforation. **CAUTION: Make sure to inspect for corrosion perforation throughout the subframe including the sides.** **NOTE: If there is any corrosion perforation, replace the subframe assembly following the SUBFRAME REPLACEMENT PROCEDURE. If no perforation exists, go to the SUBFRAME WAX APPLICATION FOR CORROSION PREVENTION procedure.**	

- **SUBFRAME WAX APPLICATION FOR CORROSION PREVENTION**

1. Put a marking point (C) on the left side member as indicated in the photo below.

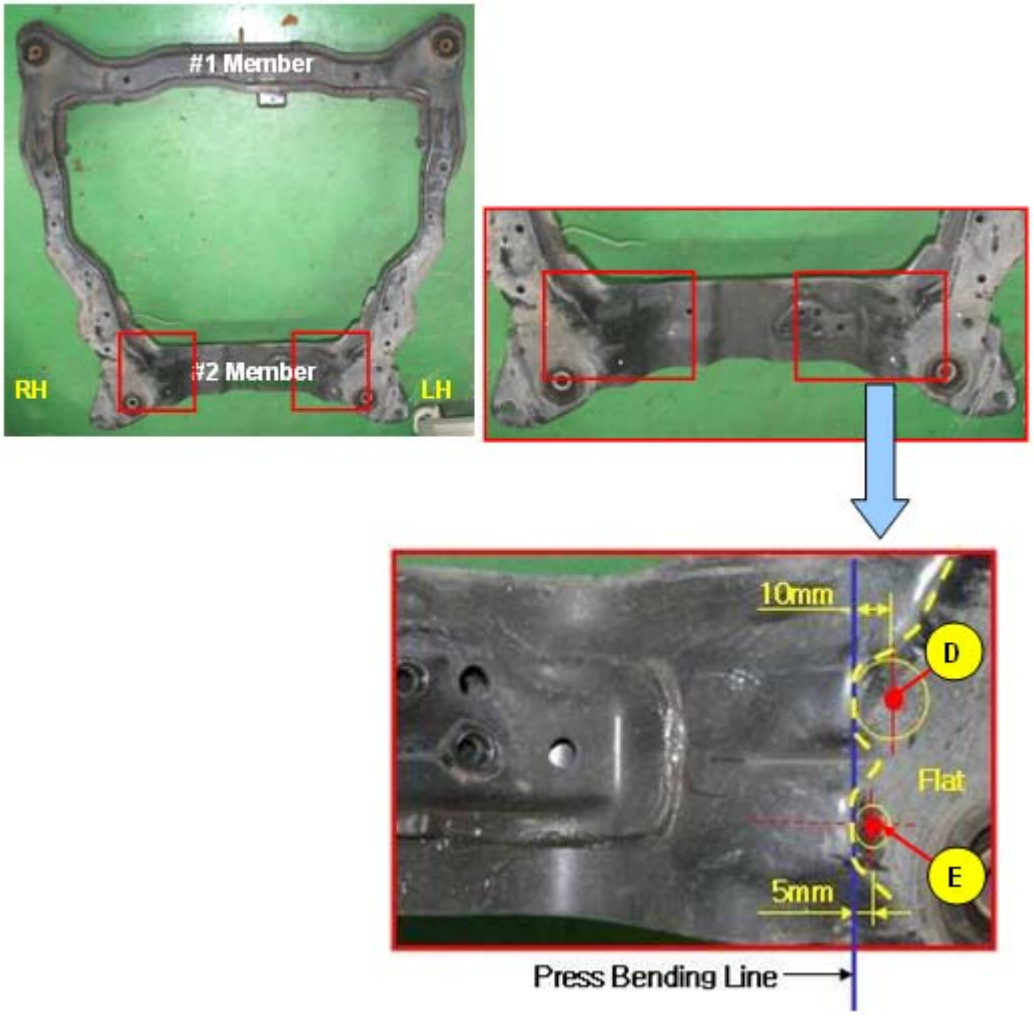
2. Put a marking point on the right side member at the same position as the left side.



3. Put 2 marking points (D, E) on the left side of # 2 member as indicated in the photo.

D: 10mm from the first inflection point of press bending line (yellow dotted line)

E: 5mm from the second inflection point of press bending line (yellow dotted line)

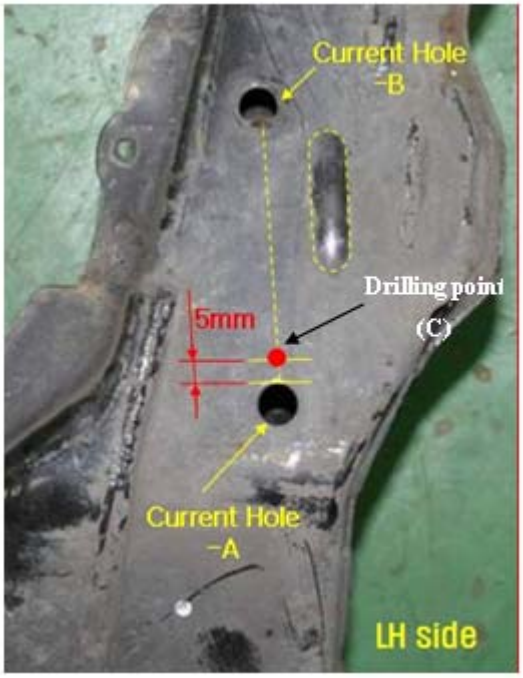


4. Put 2 marking points on the right side of # 2 member at the same positions as the left side.

5. Center the 40mm hole saw on the mark (C) and drill a hole on the left side member.

6. Repeat this procedure for the right.

CAUTION: Protect yourself by wearing goggles, a respirator, gloves, etc.



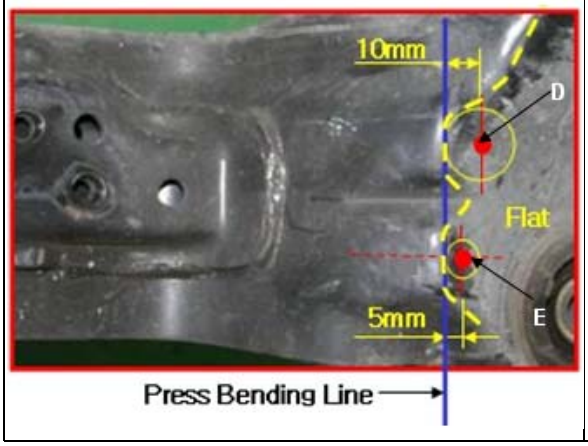
7. Remove burrs from around both the upper and lower openings of the drilled holes with a file and remove remnants of rust from around the holes prior to wax application.

8. Center the 20mm hole saw on the mark (D) and drill a hole on the right side member.

9. Repeat this procedure for the left.

10. Chuck a drill bit 8mm in diameter to a drill. Center the drill bit on the mark (E) and drill a hole on the left side member.

11. Repeat this procedure for the right.



12. Remove fragments of rust from the inside of the subframe by following the detailed procedures below. a. Strike the subframe thoroughly with a hammer to loosen internal rust.	
b. Insert a flexible magnet through the 40mm and 20mm holes and remove fragments of rust.	

c. Insert the air gun into the inside of the subframe through holes in the right and left side members and blow out rust from inside the subframe.

d. - Air guns required

Figure

e. Repeat steps from a) to c) 2 or more times.

13. Pour about 850cc of cavity wax into the injection gun reservoir. Spray cavity wax into the inside of the subframe through all the holes until wax drains through the holes. **NOTE: Make sure to use one bottle (1000cc) of cavity wax per vehicle for the subframe and front lower control arm. Use about 150cc cavity wax for front lower control arm wax application.** **CAUTION: (1) Protect yourself by wearing goggles, a respirator, gloves, etc.** **CAUTION: (2) Insure proper ventilation of your working area.** **CAUTION: (3) Be careful NOT to contaminate nearby parts and panels with wax or undercoating.**	
14. Spray undercoating on the subframe, especially around the holes.	

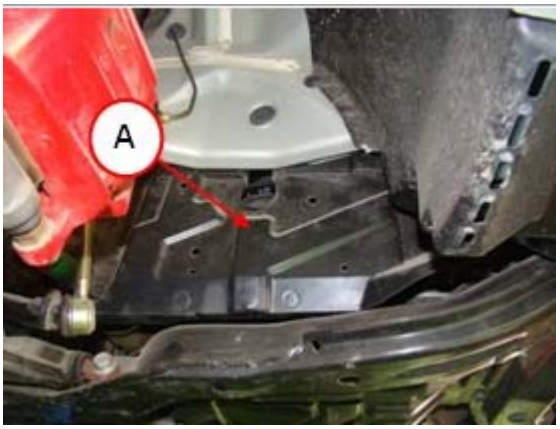
15. Cover both 40mm holes with hole plugs.	

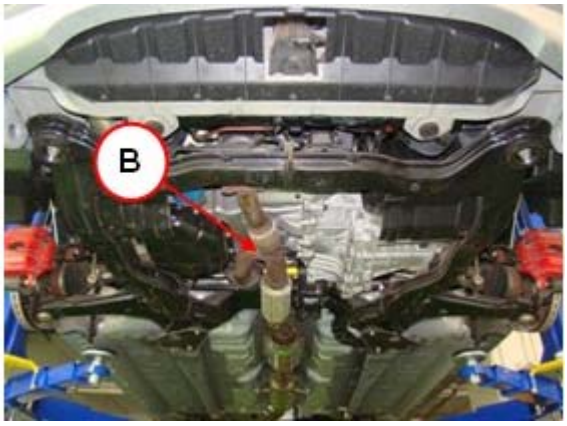
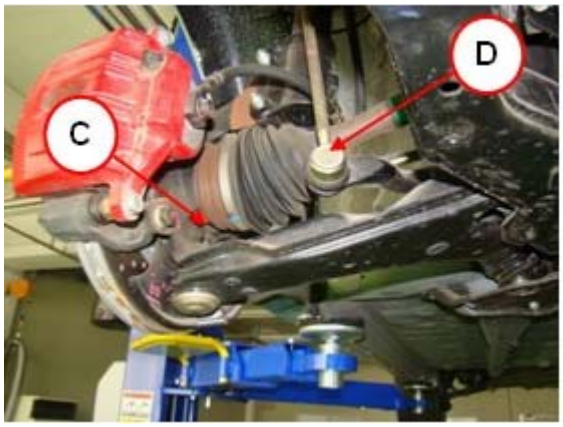
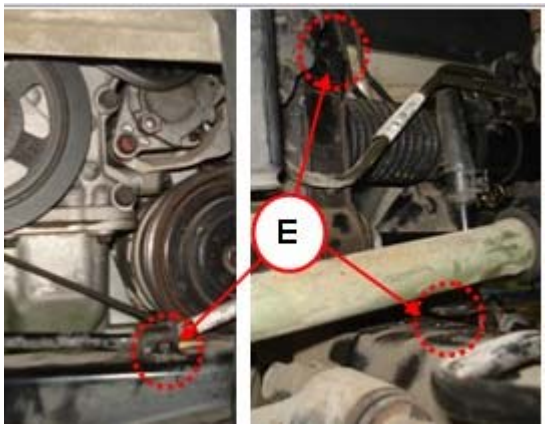
- **SUBFRAME REPLACEMENT PROCEDURE**

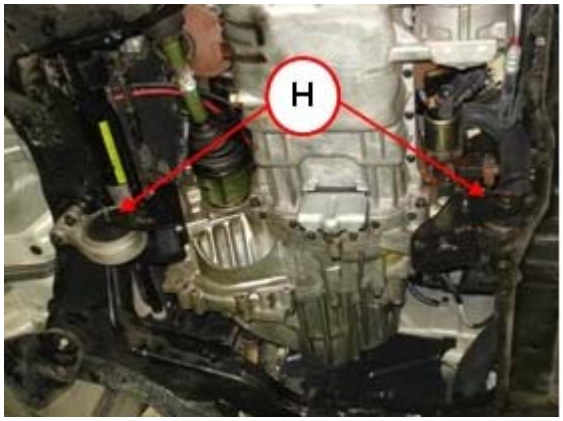
This instruction provides a procedure to replace the ELANTRA (XD) and TIBURON (GK) subframe more easily and efficiently than the original procedure.

	Original Procedure	Revised Procedure
Procedure	To replace the crossmember, remove it simultaneously with the steering gearbox.	It is possible to remove the crossmember without detaching the steering gearbox from the vehicle. DO NOT remove the steering gearbox for the crossmember replacement.

1. Lift the vehicle off the ground.
2. Remove the right and left front wheels.
3. Remove the right and left wheel side covers (A).



4. Remove the under cover. 5. Remove the front pipe (B).	
6. Remove the right and left lower control arm ball joint mounting nuts (C). 7. Remove the right and left stabilizer link lower ends (D) from the stabilizer bar.	
8. Remove the power steering pipe line mounting bolts (E).	

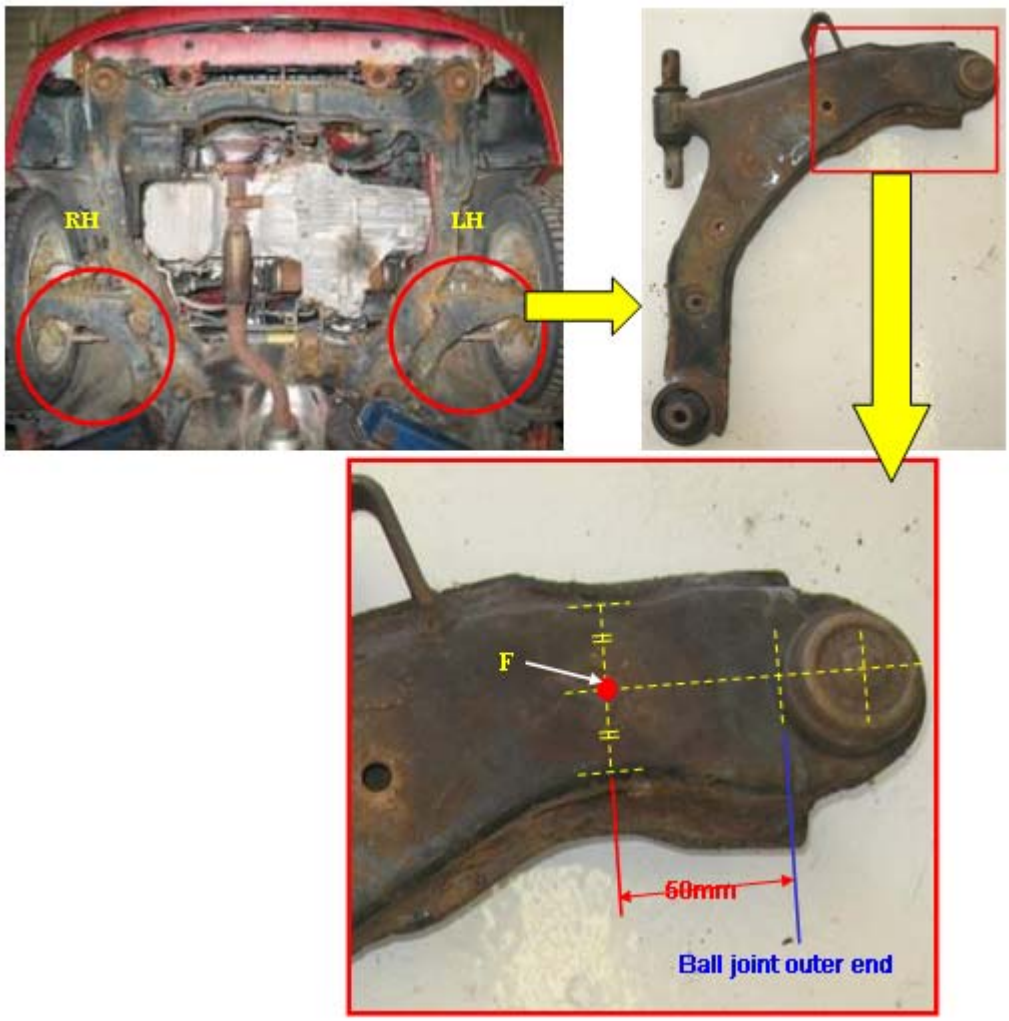
9. Remove the RH power steering gear mounting bolts (F).	
10. Remove the LH power steering gear mounting bolts (G).	
11. Remove the bolts (H) holding the front and rear roll stoppers to the brackets.	

12. Remove the right and left crossmember rear stays (I).	
13. Unfasten the 2 washer tank lower mounting bolts (J).	
14. Support the crossmember with a jack. 15. Removing the 4 crossmember mounting bolts (K), detach the crossmember from the steering gearbox and then remove the crossmember. 16. Install in reverse order of removal. **NOTE: Perform toe adjustment, if necessary.** **NOTE: Spec GK (Front): 0±2 mm (0.08±0.08 in.)** **NOTE: Spec XD (Front): 4 +3/-1 mm (0.16 +.12/-.04 in)**	

- **FRONT LOWER CONTROL ARM INSPECTION AND REMOVAL**

1. Lift up the vehicle.	
2. Lightly strike the right and left front lower control arms thoroughly with a hammer. **CAUTION: Be careful, DO NOT strike the front lower control arms too hard to prevent deformation damage.**	

3. Inspect the lower control arms for corrosion perforation. # The photo at the right shows corrosion perforation. **CAUTION: Inspect for corrosion perforation throughout the right and left front lower control arms including the sides.** **NOTE: If there is any corrosion perforation on either the right or left front lower control arms, replace both right and left front lower control arm assemblies following the applicable shop manual. If no perforation exists, go to the next step to further inspect the front lower control arms for corrosion.**	
4. Put a marking point (F) on the left front lower control arm as indicated in the photo. 5. Put a marking point on the right front lower control arm at the same position as the left side.	


RH
LH
F
60mm
Ball joint outer end

6. Center the 12mm drill bit on the mark (F) and drill a hole on the left front lower control arm.

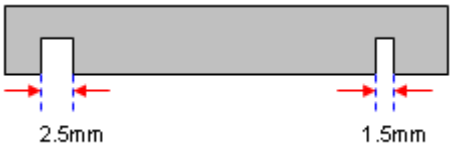
7. Repeat this procedure for the right lower control arm.

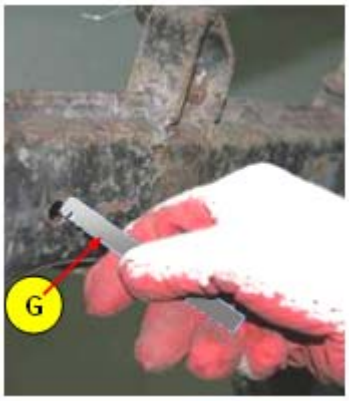
<Drill bit>

8. With a file, remove burrs around the holes. Totally remove remnants of rust around the holes.

CAUTION: If the burrs are not fully removed, it may prevent the thickness gauge from being inserted over the edge of the drilled holes.

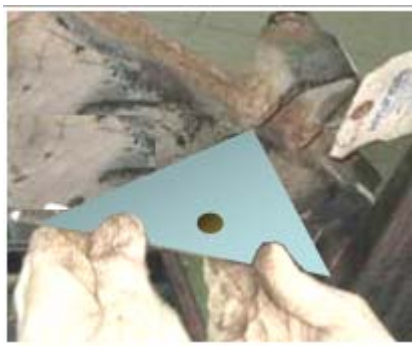
9. Inspect the thickness of the front lower control arm lower panels with the 1.5mm groove of the thickness gauge (G). Check the thickness of the front lower control arms at as many points around the hole as possible.

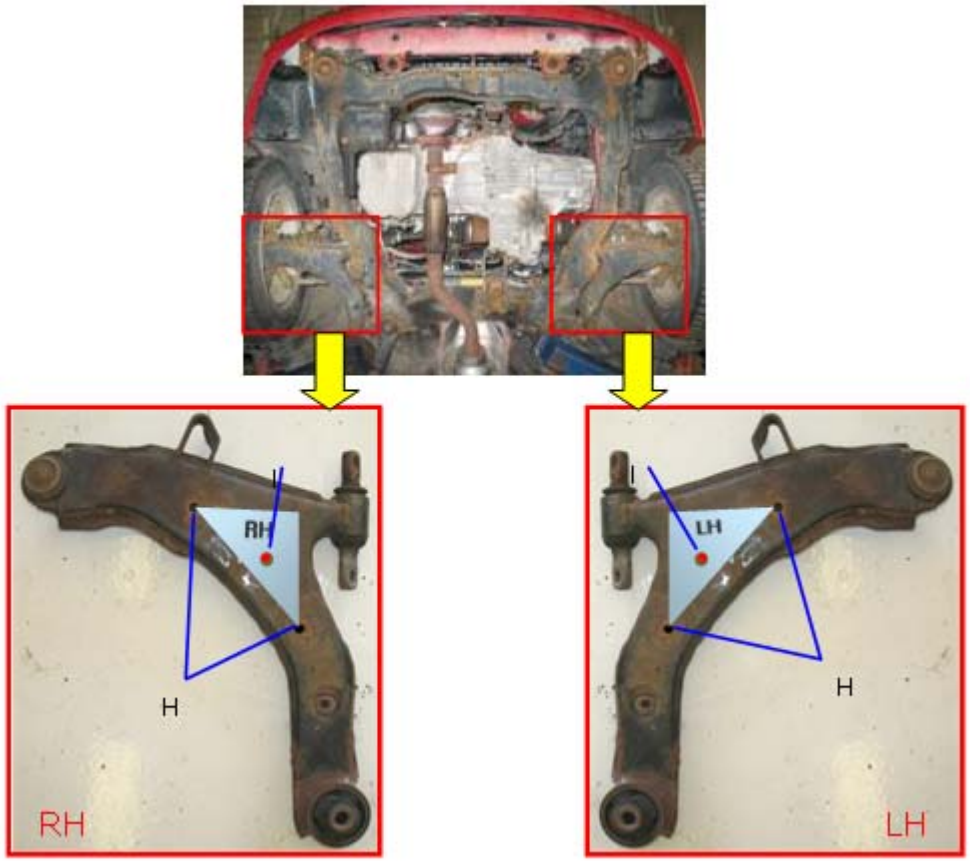




10. If either the right or left front lower control arm metal fits into the thickness gauge or is inserted into the groove, replace both right and left assemblies. If the front lower control arm metal does not fit into the 1.5mm thickness gauge, go to the procedure **FRONT LOWER CONTROL ARM WAX APPLICATION FOR CORROSION PREVENTION.**	

- **FRONT LOWER CONTROL ARM WAX APPLICATION FOR CORROSION PREVENTION**

1. Align the right angled triangle template with the 2 current holes (H) in the center of the front lower control arm as shown in the photo at the right. Put a mark (I) on the right front lower control arm. Repeat this procedure for the left.	



2. Center the 20mm hole saw on the mark and drill a hole in the right lower control arm. Repeat this procedure for the left.

< 20mm hole saw >

3. Remove fragments of rust from the inside of the front lower control arms by following the detailed procedures below. a. Strike right and left front lower arms thoroughly with a hammer.	
b. Insert a flexible magnet through all the holes and remove fragments of rust.	
c. Insert the air gun into the inside of the front lower control arms through all the holes and blow out rust from inside the lower control arms. • Air guns required Figure d. Repeat steps from a) to c) more than 2 times.	

4. Pour about 150cc of cavity wax into the injection gun reservoir. 5. Spray cavity wax into the inside of the right and left front lower control arms through all the holes until wax drains through the holes. **CAUTION: (1) Protect yourself by wearing goggles, a respirator, gloves, etc.** **CAUTION: (2) Insure proper ventilation of your working area.** **CAUTION: (3) Be careful NOT to contaminate nearby parts and panels with wax or undercoating.**	
6. Spray undercoating around the holes.	

WARRANTY CLAIM INFORMATION:

XD Elantra: Produced from Job #1 through Jan. 13, 2003 (Subframe + Front Lower Control Arm)

Op Code	Description	Op Time
		XD
91B021R0	Subframe / Lower Arm Replacement	2.5
91B021R1*	Subframe Replacement / Lower Arm Inspection & Wax Application	2.8
91B021R2	Subframe Replacement / Lower Arm Inspection & Replacement	2.6
91B021R3*	Subframe Wax Application/ Lower Arm Replacement	1.4
91B021R4*	Subframe Wax Application / Lower Arm Inspection & Wax Application	0.9
91B021R5*	Subframe Wax Application / Lower Arm Inspection & Replacement	1.5

GK Tiburon: Produced from Job #1 through Jan. 13, 2003 (Subframe + Front Lower Control Arm)

Op Code	Description	Op Time
		GK
91B021R6	Subframe / Lower Arm Replacement	2.7
91B021R7*	Subframe Replacement / Lower Arm Inspection & Wax Application	3.1
91B021R8	Subframe Replacement / Lower Arm Inspection & Replacement	2.8
91B021R9*	Subframe Wax Application / Lower Arm Replacement	1.4
91B021RA*	Subframe Wax Application / Lower Arm Inspection & Wax Application	0.9
91B021RB*	Subframe Wax Application / Lower Arm Inspection & Replacement	1.5

NOTE: Submit claims using Campaign Entry Screen

NOTE: * Each applicable claim includes a sublet amount for chemical, hole saw, and drill bit reimbursement.

NOTE: * Reimbursement for the Wax Injection Gun will be processed in Dealership's Parts statement.

PARTS SCRAP INFORMATION:

1. Lower Arm/Subframe Inspection and Replacement (without drilling holes) - It is required that digital photos be taken of the replaced parts as well as the VIN plate. These pictures must be attached to their respective repair order for DPSM review. The removed lower arms/subframe may be scrapped.

2. Lower Arm/Subframe Inspection and Replacement (with drilling holes) - It is required to retain the core sample and repair information for DPSM review. The removed lower arms/subframe may be scrapped.

3. Lower Arm/Subframe Inspection and Wax Application - It is required to retain the core sample and repair information for DPSM review.